

ABSTRACT

A transmit diversity system having at least four antennas. A first adder adds a first spread signal obtained by spreading a first symbol pattern with a first orthogonal code to a second spread signal obtained by spreading the first symbol pattern with a second orthogonal code, and transmits the added signal through a first antenna. A second adder adds the first spread signal to a third spread signal obtained by spreading an inverted symbol pattern of the first symbol pattern with the second orthogonal code, and transmits the added signal through a second antenna. A third adder adds a fourth spread signal obtained by spreading a second symbol pattern with the first orthogonal code to a fifth spread signal obtained by spreading the second symbol pattern with the second orthogonal code, and transmits the added signal through a third antenna. A fourth adder adds the fourth spread signal to a sixth spread signal obtained by spreading an inverted symbol of the second symbol pattern with the second orthogonal code, and transmits the added signal through a fourth antenna.